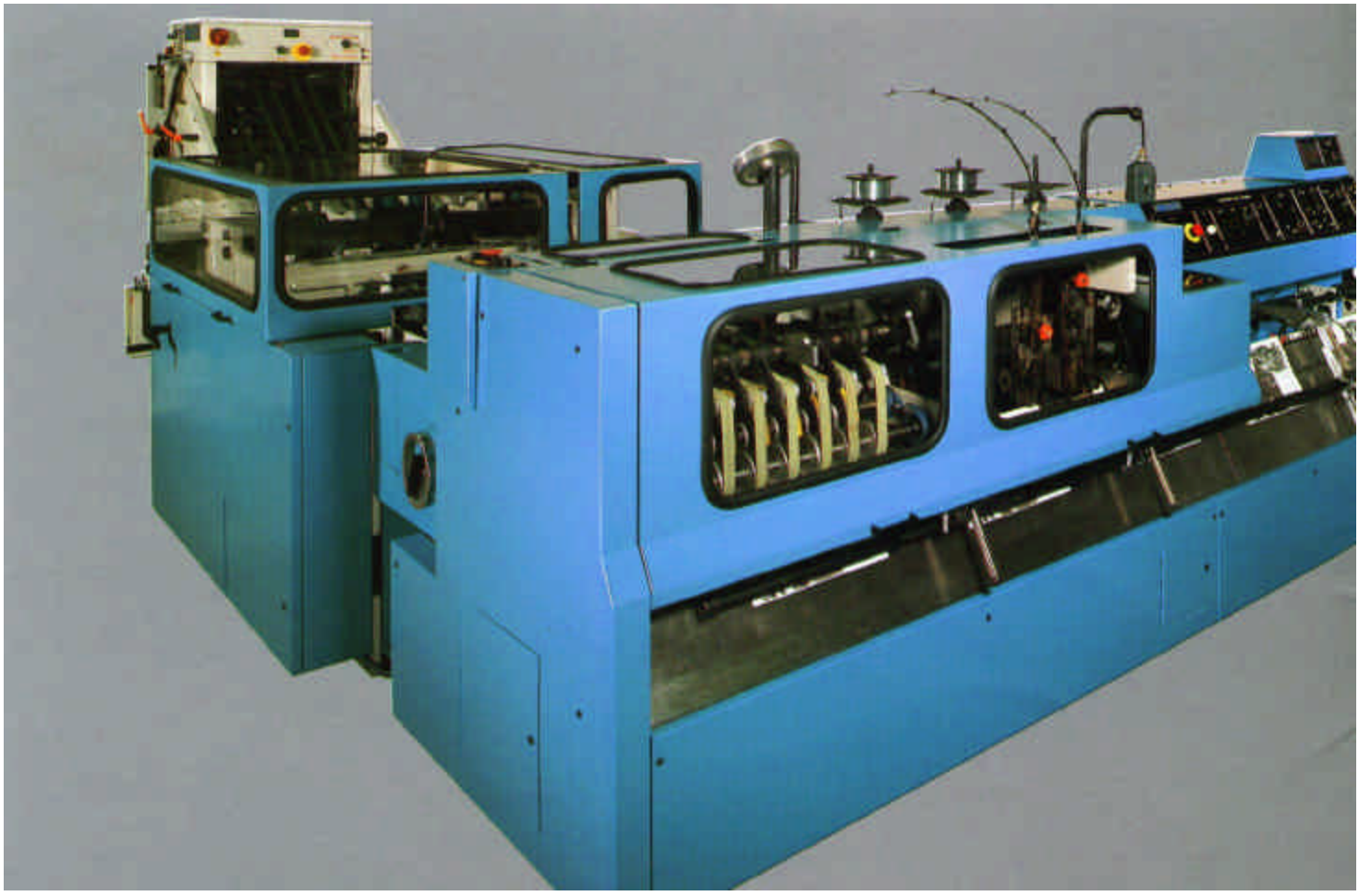
Sheridan Systems

Pacesetter

SP705

The new Pacesetter SP705
- Setting the pace for the future...

Sheridan Systems are proud to introduce the new Pacesetter SP7O5 saddle binder, a winning combination of our proven P15 style feeders with a new heavy duty stitcher and trimmer. An extensive range of new features and optional extras such as downstream inhibit (copy control), ink jet printing, selective binding and hopper loaders, make the Pacesetter SP705 the fastest, most versatile and reliable machine in its class.



Advantages at a glance

Maximum speed of 13500 cycles per hour

Fast makeready and easy set-up due to enhanced tool-less adjustments

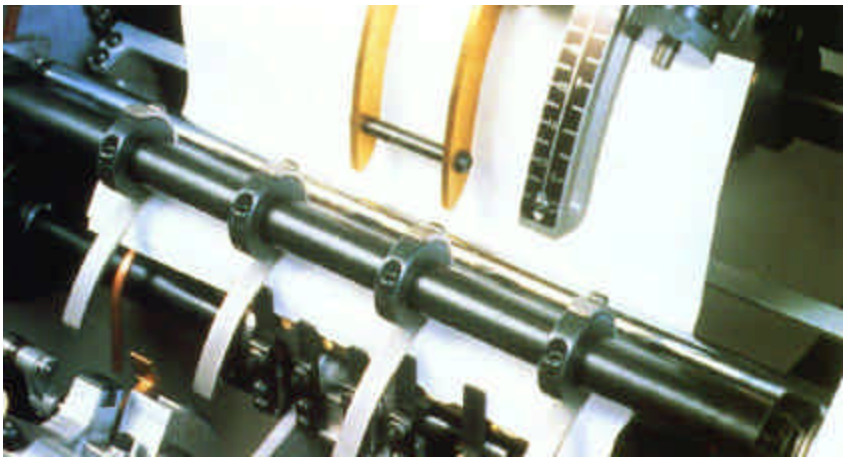
The P15 style feeders will easily handle a wider range of formats than competitive systems

New stitcher design reduces possibility of marking on today's difficult papers

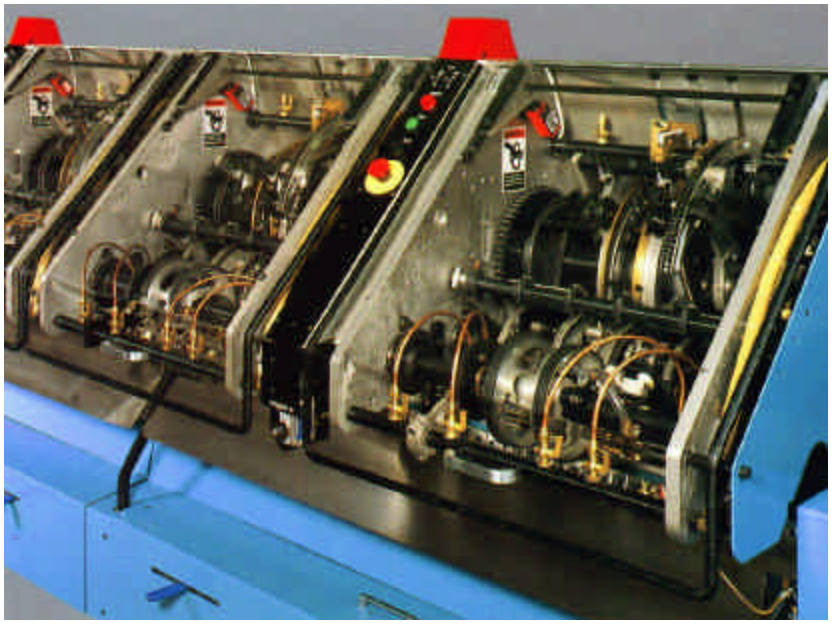
Front knife first trimmer sequence for optimum book quality, especially on larger books and 2-up (5 knife) formats

Improved control of signatures and books throughout the binding process

Quieter operation - DC main drive, cast iron base and frames, new design shuttle fingers



P15 style feeders
The most versatile ever built



The operator has an open view and access to all mechanisms on the signature flow path, so set-up is quick, easy and tool-less.

Maximum signature size
483X321 mm (19"X 12-5/8")
Minimum signature size
90 X 95 mm (3-1/2" X 3-3/4")

The Pacesetter SP705's P15 vertical feeding hoppers are the most versatile available in terms of the signature types they can effectively handle. High or low folio signatures are opened with grippers, no lap signatures by vacuum. The P15 feeder can feed no lap signatures of the same maximum size as signatures with a lap unlike competitive systems. Furthermore, grippers and vacuum can be used together if required. In short, tabloid and landscape (oblong) signatures, double parallels and traditionally tricky formats can all be fed with ease.

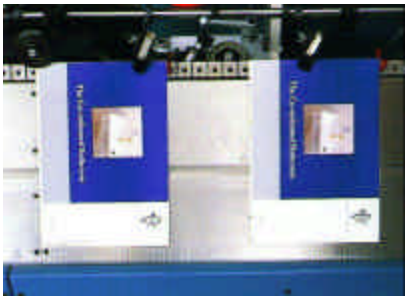
Each individual feeder can be run at full or half speed, or disengaged when not in use to prevent unnecessary wear. Feeder base frames will accommodate 2 or 4 feeders, the maximum base length being 16 spaces. Feeders can be quickly and easily moved to different positions on the base frame.

Accurate signature control throughout feeding is assured by utilizing saddle swords to give optimum register on the chain. Movable air curtain sections are available for empty hopper spaces to maintain control.

Vacuum pumps and blowers are located at the chain return end of the inserter.

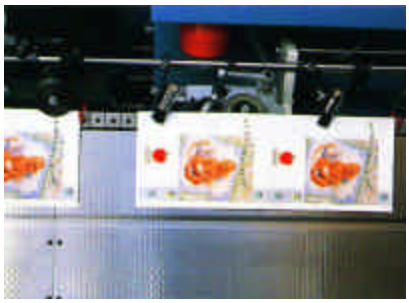
Quick-change chain pitch

The saddle chain is made of crowned steel and has urethane pusher fingers. The chain pin centers can be set at 356mm (14") or 533mm (21"), and chain pitch is altered by a control panel switch, easily repositioned fingers and by moving the chain to the adjacent drive sprocket.



No change to the chain length is necessary.

An optional kit to convert to 381 mm (15")/508 mm (20") chain pitch is available



Connection base and control panel

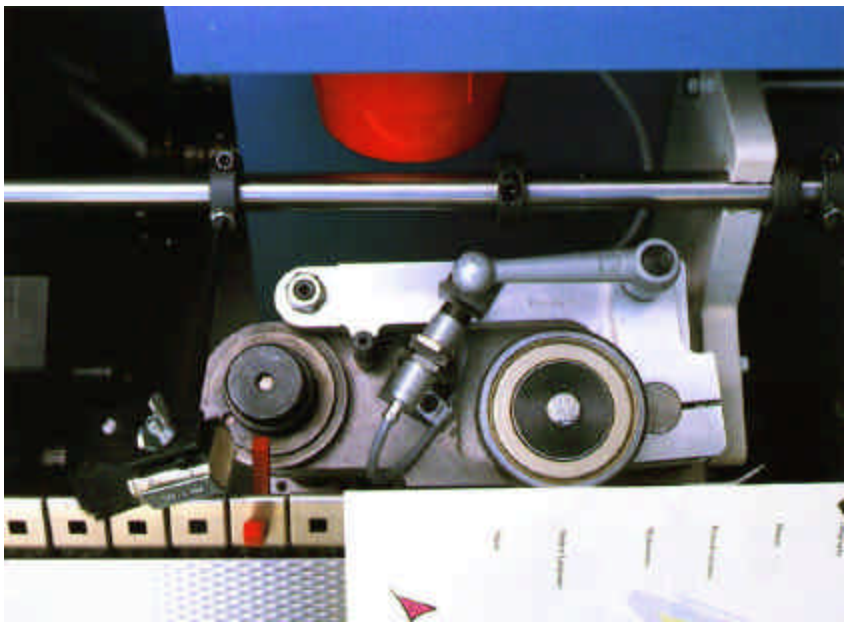
The connection base between the inserter and stitcher houses the main electrical enclosure, covered by a step-up platform. This provides a convenient loading position for the optional Cover Folder Feeder. The operator's panel is situated on the connection base, and has the usual controls:

- start/stop/jog
- speed control
- vacuum and blower on/off switches
- stitcher settings
- chain pitch settings
- caliper settings

In addition, there is a micro-processor controlled fault display panel which rotates for easy visibility from any machine position.

Improved book quality systems

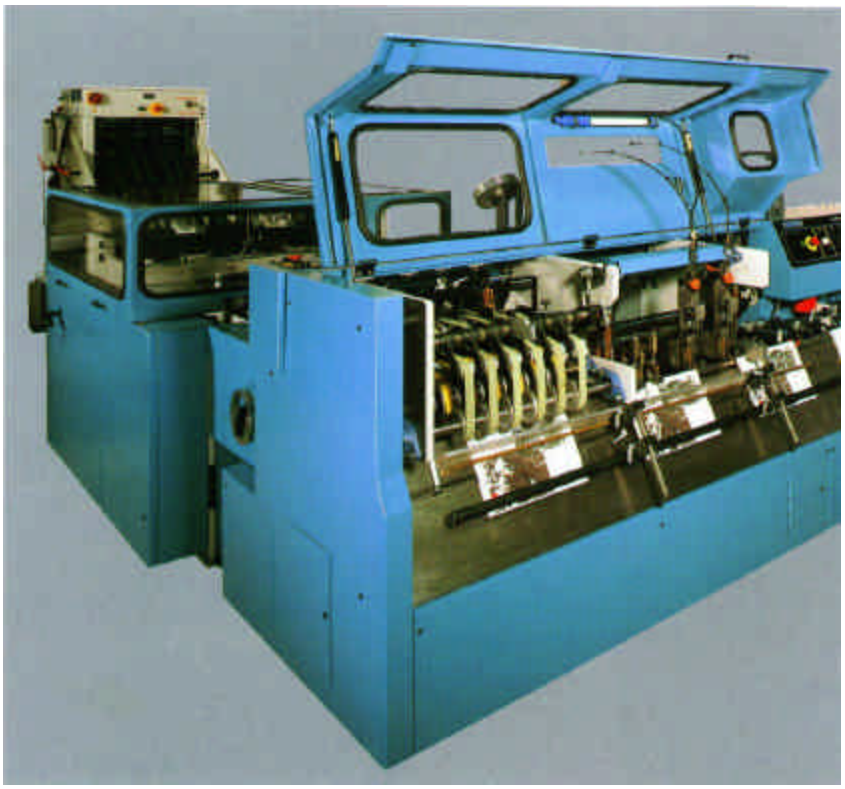
The master caliper (book inspector) detects both "overs" and "unders" on the high folio half of the book by means of a new electronic proximity sensor system. A bad book signal activates the stop-stitch and auto reject mechanisms. The caliper can be positioned anywhere on the spine length by a push button setting. It is saddle chain driven which eliminates the need for a drive pulley change when changing the chain pitch.

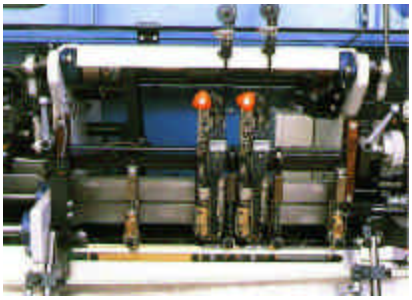


In addition to the caliper, there is a long and skewed signature detection system utilizing 4 photocells which also activates the stop-stitch and auto-reject.

The reject collection tray is accessible and visible from both sides of the machine and has a large pile height capacity.

New design heavy duty stitcher





The Pacesetter 5P705 stitcher is of the reciprocating shuttle design. A heavy duty cast iron lower base construction with modular upper sections offers improved durability and long term, high speed reliability. Shuttle stroke may be matched to the chain pitch setting and is changed by a switch on the control panel and a simple mechanical adjustment. Significant noise reduction is achieved through the use of a polyurethane dampened shuttle gripper system and improved machine guarding.

Accurate book control in the stitcher area is provided by an air curtain, a hold-down brush, and spring-loaded anvils. Rigitex stainless steel saddle skirts are used to minimize marking, friction and static throughout the stitcher. A two-stage gripper closing system gives exact speed matching on gripper pick up. The stitcher has mounting positions for wire spools up to 15 kg (35lb). Larger floor positioned 100 kg (220 lb) spools are also available.

There is a missing stitch detector to ensure all books have the correct amount of stitches. Books with a missing stitch, or any other fault found by the caliper or long book detector, are delivered into the reject tray under the trimmer infeed table. An audible signal is used to indicate to the operator that stitches have been missed.

A photoeye book detector control monitors book flow through the stitcher and stops the machine in the event of a jam, preventing mechanical damage.

The whole stitcher area is covered by one large gas strut assisted hinged guard, equipped with an internal light for improved visibility. There is a stitcher mounted jog station which can be hand held and moved to any position to allow the operator to move the machine with the guards open.

Technical data

Subject to change without notice

Maximum signature size (untrimmed)	483 x 321 mm (19" x 12-5/8")
Minimum signature size (untrimmed)	90 x 95 mm (3-1/2" x 3-3/4")
Maximum book size (trimmed)	476 x 318 mm (18-3/4" x 12-1/2")
Minimum book size (trimmed)	146 x 76 mm (5-3/4" x 3")
Maximum book thickness	12 mm (½") compressed
Maximum speed	Infinitely variable to 13500/hour, dependent on size, thickness, condition of stock and other operating conditions.
Maximum number of feed hoppers	24 standard
Signature lap requirement	6 - 16 mm (1/4" - 5/8")
Caliper accuracy	± 0.05 mm (0.002")
Main drive	Standard 14.6 KW motor with programmable system controller.
Vacuum pumps and blowers	Vacuum pumps for signature feeding and opening. Low pressure blowers for feeder and saddle chain signature control.
Compressed air (high pressure)	Required only when optional stacker (without compressor), hopper loaders, trimmer air blast or card tipper are utilised.

Stitching heads	Hohner 52/8 round wire heads, 14 mm (0.55")
Stitching thickness	Up to 6 mm (1/4") through crown of the book.
Maximum number of heads	6
Wire diameter	0.4 - 0.6 mm (0.015" - 0.023")
Trimmer knives	3 cutting and 3 bed
Maximum trim allowance	51 mm (2") on all 3 sides.
Waste removal	Mechanical conveyor removes chips to optional removal system, in-house system or customer- supplied collection box.
Lubrication	Manual oil and grease fittings on inserter and connection base. Automatic oiler for raceway chain. Centralized automatic oiling systems for stitcher and trimmer (every 20000 cycles).
Guarding	Upper hinged guards are gas strut assisted for easy handling and are interlocked to machine run circuit.
Safety	All guards and electrical wiring and components conform to European and USA
Power requirements	Approximately 30 KVA maximum, dependent on pump selection.

Optional equipment

4th/5th knife attachment

The 4th/5th knife attachment for 2-up work allows high quality trimming at low cost. It takes just 15-20 minutes to fit - there are no extra chains to install. An optional 6th/7th knife is also available.

Hopper loaders

Signature logs are loaded onto the hopper loaders which shingle the signatures and supply the feeders on demand. 2 or 3 m (79" or 118") extensions allow signature logs to be accumulated.

Movable air curtain sections

These are fitted in empty feeder spaces on the base frame for signature control.

Downstream inhibit (copy control)

The downstream hopper feed is automatically stopped after a miss is detected, thus reducing waste.

Inkjet expansion base

This 3.7 m (12') expansion base fits between the connection base area and stitcher, to accept inkjet system print stands.

Card tipper

The card tipper applies a card insert to the outside of a specified section. A floor rail enables the card tipper to be positioned next to any empty feeder space.

Cover folder feeder

The cover folder feeder fits into any feeder space and feeds flat covers, with either inside or outside score, Gentle folding action avoids possible damage to ink or coating on the spine.

Card folder feeder

This folds and feeds flat cards onto the saddle chain, as with the cover folder feeder, it can be mounted in any feeder space.

Compensating counter stacker

Compensating counter stackers are fitted to the trimmer delivery to place the finished books into stacked, or counter-stacked, piles of books.

Mail table

The mail table is connected to the trimmer delivery for cover paper label or ink jet addressing.

Trimmer hole punch attachment

Hole punching can be trimmer mounted or supplied as an independent post trimmer unit. Note: Only 2-hole punching is possible with the trimmer mounted unit.

Wire spool holders

Floor mounted, 100 kg (220 lb) capacity.

Trimmer waste removal

For connection to in-house extraction system.

Delivery conveyor with batching arm

Accurately counts books through the trimmer and batches them.

Horizontal feeders

Horizontal feeders can provide more reliable signature feeding in certain circumstances, particularly when using hopper loaders.

Pacesetter 705 Details

Available Features and Benefits

Speed reduced 33% on 14" chain pin center means better control
Edge feeding less marking on signature
Dual gripper-primary & opening
Fewer misfeeds-no lap, hi or low folio
P15 #1 rated pocket in Industry
Side caliper reads more accurately. Does not split backbone

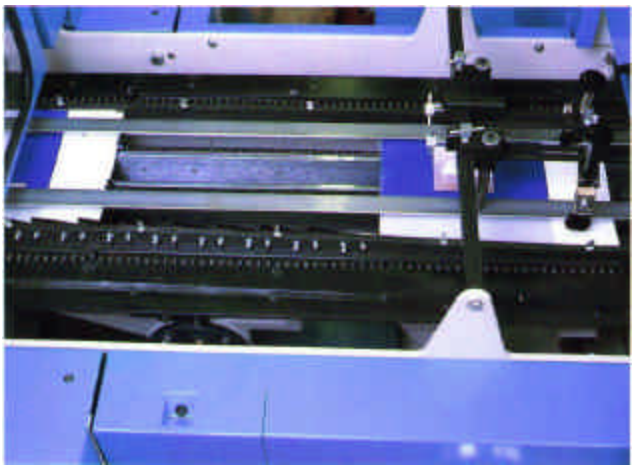
Product Specifications

Operating Speed, Maximum	13,500 cycles per hour
Maximum number of pockets	24
Maximum book size	18-13/16" x 12-5/8" (332 x 321 mm)
Minimum book size	3-1/2" x 2-1/2" (90 x 63mm)
Maximum book thickness	1/2" (12 mm)
Trim allowance stitchers	Up to 2" (50 mm) on all three sides

New easy access, simple to set trimmer

Transfer of stitched books to the trimmer infeed is via a 90 degree upward rear tape delivery (title up). An adjustable end stop assists accurate transfer into the tapes. There are 4 infeed transport chains - the outer chains are integral with the side guides and are hand wheel controlled for easy book size adjustments.

Infeed pushers and double transport belts place the book against dual backstops, which are set by remote hand wheel adjustment and a digital book width indicator. These double belts then index the book into place for the head and tail trim and finally onto a 1.5 m (5') flat belt delivery, counter stacker, mail table or post trimmer inserter.



The use of one set of transport belts between front and side knife trim positions ensures perfect register throughout the trimming process.

A further advantage is that the trimmer can be run at half the speed of the stitcher when books are less than 6.35 mm (1/4") thick (depending on stock). Trimming is then done in piles of two books at a time.

Consistent trim quality and long trimmer life are assured by the use of linear ball bushings and hardened posts for knife guiding. Tungsten alloy trimmer knives are supplied as standard. The cast iron trimmer base provides stable, high speed operation. Guards are the hinged gull wing style, with the infeed area open to give improved operator control whilst restricting access to the front knife.